

In th Claims

Please cancel claims 12 and 23 without prejudice.

Please amend claims 11 and 22 as indicated below, wherein any addition(s) to the amended claims is/are underlined, and any deletion(s) to the amended claims is/are presented as struckthrough text.

1. (Original) A treatment medium for purifying a quantity of water, comprising:
an alumina substrate having been heated to a temperature in the range of 300°F to 375°F and having a predetermined weight; and
a quantity of silver deposited on the alumina substrate, the quantity of silver having a predetermined weight in the range of about 1% to 10% of the predetermined weight of the alumina substrate.
2. (Original) The treatment medium of claim 1, wherein the quantity of silver is sufficient to release a concentration of silver in the range of about 50 parts per billion to 100 parts per billion to water treated by the treatment medium.
3. (Original) The treatment medium of claim 1, wherein the alumina substrate has a particle size in the range of about 4 mesh to 20 mesh.
4. (Original) The treatment medium of claim 3, wherein the alumina substrate has a particle size in the range of about 8 mesh to 14 mesh.
5. (Original) The treatment medium of claim 1, wherein the alumina substrate is substantially insoluble in water.
6. (Original) The treatment medium of claim 1, wherein the alumina substrate has a porosity that provides a surface area of at least 150 square inches per gram.
7. (Original) The treatment medium of claim 6, wherein the alumina substrate has a porosity that provides a surface area of at least 210 square inches per gram.

8. (Original) The treatment medium of claim 1, wherein the alumina substrate has a pH in the range of about 5 to 9.

9. (Original) The treatment medium of claim 1, wherein the alumina substrate has a hardness of greater than about 2.5 according to the Mohs scale.

10. (Original) The treatment medium of claim 9, wherein the alumina substrate has a hardness of greater than about 9.0 according to the Mohs scale.

11. (Currently Amended) A treatment medium for purifying a quantity of water, comprising:

an alumina substrate having been heated to a temperature in the range of 300°F to 375°F or less and having a predetermined weight;

a quantity of filler material intermixed within the alumina substrate, the quantity of filler material having a predetermined weight; and

a quantity of silver deposited on the alumina substrate, wherein the quantity of silver;

(a) has having a predetermined weight in the range of about 1% to 10% of the sum of the predetermined weight of the alumina substrate and the predetermined weight of the quantity of filler material; and

(b) is sufficient to release a concentration of silver in the range of about 50 parts per billion to 100 parts per billion to water treated by the treatment medium.

12. (Canceled).

13. (Original) The treatment medium of claim 11, wherein the filler material is a charcoal.

14. (Original) The treatment medium of claim 13, wherein the filler material is activated charcoal.

15. (Original) The treatment medium of claim 11, wherein the predetermined weight of the quantity of filler material is greater than the predetermined weight of the alumina substrate.

16. (Original) The treatment medium of claim 15, wherein the predetermined weight of the quantity of filler material is greater than the predetermined weight of the alumina substrate, but less than or equal to five times the predetermined weight of the alumina substrate.

17. (Original) The treatment medium of claim 16, wherein the predetermined weight of the quantity of filler material is about two times greater than the predetermined weight of the alumina substrate.

18. (Original) The treatment medium of claim 11, wherein each of the alumina substrate and the filler material has a harness according to the Mohs scale, and wherein the hardness of the alumina substrate is greater than the hardness of the filler material.

19. (Original) The treatment medium of claim 18, wherein the hardness of the alumina substrate is greater than about 2.5 according to the Mohs scale, and the hardness of the filler material is less than about 2.5 according to the Mohs scale.

20. (Original) A method of forming a treatment medium for purifying a quantity of water, comprising the steps of:

providing an alumina substrate having a predetermined weight;

heating the alumina substrate to a temperature in the range of 300°F to 375°F for a predetermined amount of time;

depositing a quantity of silver onto the alumina substrate, wherein the quantity of silver has a predetermined weight that is in the range of about 1% to 10% of the predetermined weight of the alumina substrate.

21. (Original) The method of claim 20, wherein the quantity of silver is sufficient to release a concentration of silver in the range of about 50 parts per billion to 100 parts per billion to water treated by the treatment medium.

22. (Currently Amended) A method of forming a treatment medium for purifying a quantity of water, comprising the steps of:

providing an alumina substrate having a predetermined weight;

introducing a quantity of filler material within the alumina substrate, the quantity of filler material having a predetermined weight;

heating the alumina substrate with intermixed quantity of filler material to a temperature in the range of 300°F to 375°F for a predetermined amount of time; and

depositing a quantity of silver onto the alumina substrate with introduced quantity of filler material, wherein the quantity of silver:

(a) has a predetermined weight that is in the range of about 1% to 10% of the sum of the predetermined weight of the alumina substrate and the predetermined weight of the filler material; and

(b) is sufficient to release a concentration of silver in the range of about 50 parts per billion to 100 parts per billion to water treated by the treatment medium.

23. (Canceled).

24. (Original) The method of claim 22, wherein the filler material is a charcoal.

25. (Original) The method of claim 24, wherein the filler material is activated charcoal.

26. (Original) The method of claim 22, wherein the predetermined weight of the quantity of filler material is greater than the predetermined weight of the alumina substrate.

27. (Original) The method of claim 26, wherein the predetermined weight of the quantity of filler material is greater than the predetermined weight of the alumina substrate, but less than or equal to five times the predetermined weight of the alumina substrate.

28. (Original) The method of claim 27, wherein the predetermined weight of the quantity of filler material is about two times greater than the predetermined weight of the alumina substrate.

29. (Original) The method of claim 22, wherein each of the alumina substrate and the filler material has a hardness according to the Mohs scale, and wherein the hardness of the alumina substrate is greater than the hardness of the filler material.

30. (Original) The method of claim 29, wherein the hardness of the alumina substrate is greater than about 2.5 according to the Mohs scale, and the hardness of the filler material is less than about 2.5 according to the Mohs scale.

Please also add the following new claims:

31. (New) A treatment medium for purifying a quantity of water for storage in a non-metallic container, comprising:

an alumina substrate having been heated to a temperature in the range of 300°F to 375°F and having a predetermined weight; and

a quantity of silver deposited on the alumina substrate, the quantity of silver having a predetermined weight in the range of about 1% to 10% of the predetermined weight of the alumina substrate.

32. (New) The treatment medium of claim 31, wherein the non-metallic container is selected from the group consisting of a pool, a spa, a bottle and a canteen.

33. (New) The treatment medium of claim 31, wherein the non-metallic container is a plastic container.

34. (New) The treatment medium of claim 31, wherein the non-metallic container has a capacity of less than 2000 gallons.

35. (New) A method of forming a treatment medium for purifying a quantity of water for storage in a non-metallic container, comprising the steps of:

providing an alumina substrate having a predetermined weight;

heating the alumina substrate to a temperature in the range of 300°F to 375°F for a predetermined amount of time;

depositing a quantity of silver onto the alumina substrate, wherein the quantity of silver has a predetermined weight that is in the range of about 1% to 10% of the predetermined weight of the alumina substrate.

36. (New) The treatment medium of claim 35, wherein the non-metallic container is selected from the group consisting of a pool, a spa, a bottle and a canteen.

37. (New) The treatment medium of claim 35, wherein the non-metallic container is a plastic container.

38. (New) The treatment medium of claim 35, wherein the non-metallic container has a capacity of less than 2000 gallons.